WHAT IS CLAIMED IS:

1.   A push service system comprising:

a plurality of data servers connected to a network using an Internet protocol and have various information, and post

5   information about updating of the various information to agents which are substitute for user terminals connected to the network via said network;

at least one agent connected to said network, wherein said agent accepts the information about updating of the various

10   information posted by said data servers, wherein when the information about updating is an information about updating requested by registered user terminals said agent posts the information about updating to said registered user terminals via said network; and

15   a plurality of user terminals connected to said network, wherein said user terminals accept the post of the information about updating from said registered agents, and access said data servers which have posted the information about updating via said network so as to obtain contents of the updated

20   information.

2.   The push service system according to claim 1, wherein said agent is composed of a plurality of agents in a subnetwork connected to said network, and said user terminals register

25   themselves into the plurality of agents, and said agent executes

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a representative process for said registered user terminals.

3.   The push service system according to claim 2, wherein a representative agent is provided between said network and said
5   subnetwork, and said representative agent executes a transit process between said data servers and said agent in said subnetwork and between said user terminals and said agent in said subnetwork.

10   4.   The push service system according to claim 1, wherein said agent is locally connected to at least one provider, said provider being connected to said network, said user terminals being connected to said provider, wherein said data servers post the information about updating or the contents of the updated
15   information to said agent via said provider, and said agent posts the information about updating or the contents of the updated information to said user terminals via said providers.

5.   The push service system according to claim 4, wherein said
20   provider is composed of a plurality of providers having a hierarchical relationship, said user terminals and said agent having high-hierarchical agents register the information about said user terminals and requested various information into said agent connected to rightly above provider, said agent having
25   the highest-hierarchical agents and low-hierarchical agent

post the information about updating or the contents of the updated information posted from said data servers to agents which lower hierarchically connect user terminals which have made the request.

6.   The push service system according to claim 1, wherein said agent posts the information about updating or the contents of the updated information to said registered user terminals via a network which is different from said network.

7.   The push service system according to claim 1, wherein said agent have a list table of data servers that provide the various information, and when said agent accepts the post that the various information is provided from a data server which is not registered in the list table said agent executes a process for additionally registering said data server into the list table.

8.   The push service system according to claim 1, wherein said agent further has data type management information for managing the various information per data type, and when said agent accepts the post that management contents of the various information which are managed by said data servers from said data servers that provide the various information said agent adds or deletes said data servers from the data type management information based on the posted management contents.

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9.   The push service system according to claim 8, wherein when said agent receives the post of the information about adding or deleting the data types of the various information managed by said data servers from said data servers that provide the

5   various information, said agent adds or deletes said data servers relating to the data types to be added or deleted to/from said data servers in the data type management information.

10.   The push service system according to claim 8, wherein when

10   the data types in management are changed, said agent posts the change of the data types to said user terminals.

11.   The push service system according to claim 10, wherein when said agent manages the data types in a hierarchical

15   relationship, and when the data type is changed said agent posts the change of the data types to said user terminals where a low-hierarchical data type of the changed data types is registered.

20   12.   A push service system comprising:
       a plurality of data servers connected to a network using an Internet protocol and have various information, and post information about updating of the various information to agents which are substitute for user terminals connected to the network

25   via said network;

at least agent connected to said network, wherein said agent accepts the information about updating of the various information posted by said data servers, wherein when the information about updating is an information about updating requested by registered user terminals said agent accesses said data servers which have posted the information about updating via said network so as to obtain contents of the updated information, and posts the contents of the updated information to said registered user terminals via said network; and

a plurality of user terminals connected to said network, wherein said user terminals receive the contents of the updated information from said registered agents so as to obtain the contents of the updated information.

13. The push service system according to claim 12, wherein said agent is composed of a plurality of agents in a subnetwork connected to said network, and said user terminals register themselves into the plurality of agents, and said agent executes a representative process for said registered user terminals.

14. The push service system according to claim 13, wherein a representative agent is provided between said network and said subnetwork, and said representative agent executes a transit process between said data servers and said agent in said subnetwork and between said user terminals and said agent in

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said subnetwork.

15.   The push service system according to claim 12, wherein said agent is locally connected to at least one provider, said

5   provider being connected to said network, said user terminals being connected to said provider, wherein said data servers post the information about updating or the contents of the updated information to said agent via said provider, and said agent posts the information about updating or the contents of the

10   updated information to said user terminals via said providers.

16.   The push service system according to claim 15, wherein said provider is composed of a plurality of providers having a hierarchical relationship, said user terminals and said agent

15   having high-hierarchical agents register the information about said user terminals and requested various information into said agent connected to rightly above provider, said agent having the highest-hierarchical agents and low-hierarchical agent post the information about updating or the contents of the

20   updated information posted from said data servers to agents which lower hierarchically connect user terminals which have made the request.

17.   The push service system according to claim 12, wherein said agent posts the information about updating or the contents of the updated information to said registered user terminals via a network which is different from said network.

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18.   The push service system according to claim 12, wherein said agent have a list table of data servers that provide the various information, and when said agent accepts the post that the various information is provided from a data server which

10   is not registered in the list table said agent executes a process for additionally registering said data server into the list table.

19.   The push service system according to claim 12, wherein

15   said agent further has data type management information for managing the various information per data type, and when said agent accepts the post that management contents of the various information which are managed by said data servers from said data servers that provide the various information said agent

20   adds or deletes said data servers from the data type management information based on the posted management contents.

20.   The push service system according to claim 19, wherein when said agent receives the post of the information about

25   adding or deleting the data types of the various information

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managed by said data servers from said data servers that provide

the various information, said agent adds or deletes said data

servers relating to the data types to be added or deleted to/from

said data servers in the data type management information.

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21.   The push service system according to claim 19, wherein

when the data types in management are changed, said agent posts

the change of the data types to said user terminals.

10   22.   The push service system according to claim 21, wherein

when said agent manages the data types in a hierarchical

relationship, and when the data type is changed said agent posts

the change of the data types to said user terminals where a

low-hierarchical data type of the changed data types is

15   registered.

23.   A push service system comprising:

a plurality of data servers connected to a network using

an Internet protocol and have various information, and post

20   information about updating of the various information to agents

which are substitute for user terminals connected to the network

via said network;

at least one agent connected to said network, wherein said

agent accepts the contents of the updated various information

25   posted by said data servers, wherein when the contents of the

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updated information is an information about updating requested
by registered user terminals said agent posts the contents of
the updated information to said registered user terminals via
said network; and

5   a plurality of user terminals connected to said network,
wherein said user terminals receive the contents of the updated
information from said registered agents so as to obtain the
contents of the updated information.

10   24.   The push service system according to claim 23, wherein
said agent is composed of a plurality of agents in a subnetwork
connected to said network, and said user terminals register
themselves into the plurality of agents, and said agent executes
a representative process for said registered user terminals.

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    25.   The push service system according to claim 24, wherein
a representative agent is provided between said network and said
subnetwork, and said representative agent executes a transit
process between said data servers and said agent in said

20   subnetwork and between said user terminals and said agent in
said subnetwork.

    26.   The push service system according to claim 23, wherein
said agent is locally connected to at least one provider, said

25   provider being connected to said network, said user terminals

being connected to said provider, wherein said data servers post

the information about updating or the contents of the updated

information to said agent via said provider, and said agent

posts the information about updating or the contents of the

5   updated information to said user terminals via said providers.

27.   The push service system according to claim 26, wherein

said provider is composed of a plurality of providers having

a hierarchical relationship, said user terminals and said agent

10   having high-hierarchical agents register the information about

said user terminals and requested various information into said

agent connected to rightly above provider, said agent having

the highest-hierarchical agents and low-hierarchical agent

post the information about updating or the contents of the

15   updated information posted from said data servers to agents

which lower hierarchically connect user terminals which have

made the request.

28.   The push service system according to claim 23, wherein

20   said agent posts the information about updating or the contents

of the updated information to said registered user terminals

via a network which is different from said network.

29.   The push service system according to claim 23, wherein said agent have a list table of data servers that provide the various information, and when said agent accepts the post that the various information is provided from a data server which

5   is not registered in the list table said agent executes a process for additionally registering said data server into the list table.

30.   The push service system according to claim 23, wherein

10   said agent further has data type management information for managing the various information per data type, and when said agent accepts the post that management contents of the various information which are managed by said data servers from said data servers that provide the various information said agent

15   adds or deletes said data servers from the data type management information based on the posted management contents.

31.   The push service system according to claim 30, wherein when said agent receives the post of the information about

20   adding or deleting the data types of the various information managed by said data servers from said data servers that provide the various information, said agent adds or deletes said data servers relating to the data types to be added or deleted to/from said data servers in the data type management information.

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32.   The push service system according to claim 30, wherein when the data types in management are changed, said agent posts the change of the data types to said user terminals.

5   33.   The push service system according to claim 32, wherein when said agent manages the data types in a hierarchical relationship, and when the data type is changed said agent posts the change of the data types to said user terminals where a low-hierarchical data type of the changed data types is

10   registered.

34.   A push service processing method, comprising:

the registration step of registering information about user terminals connected to a network using an Internet protocol

15   and various information which is requested to be posted by the user terminals into agents which are connected to the network and are substitute for the user terminals;

the first post step that a plurality of data servers which are connected to the network and have various information post

20   information about updating of the various information to the agents via the network;

the second post step that when the agents receive the information about updating posted by the plurality of data servers and the information about updating is information about

25   updating requested by registered user terminals, the agents

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post the information about updating to the registered user terminals via the network; and

the obtaining step that the user terminals receive the post of the information about updating from the agents, and

5   access to the data servers which have posted the information about updating at the first post step via the network so as to obtain contents of updated information.

35.   The push service processing method according to claim 34,
10   wherein at the second post step the agents post the information about updating or the contents of the updated information to the user terminals via another network.

36.   The push service processing method according to claim 34,
15   further comprising the first processing step that when the not less than one agents accept the post that the various information is provided from a data server which is not registered into a list table for managing a list of the data servers for providing the various information, the agents
20   additionally register said data server into the list table.

37.   The push service processing method according to claim 34, further comprising the second processing step that when the not less than one agents accept the post of management contents of
25   the various information managed by data servers for providing

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the various information from said data servers, the agents add or delete the data servers in the data type management information for managing the various information per data type based on the posted management contents.

38.   The push service processing method according to claim 34, further comprising the third processing step that when the not less than one agents accept the information about adding or deleting the data types of the various information managed by data servers for providing the various information from said data servers, the agents add or delete data servers relating to the data types to be added or deleted to/from the data servers in the data type management information for managing the various information per data type.

39.   The push service processing method according to claim 34, further comprising the third post step that when the data types in management are changed, the not less than one agents post the change of the data types to the user terminals.

40.   The push service processing method according to claim 39, further comprising the fourth post step that when the data types are managed in a hierarchical relationship and the data types are changed, the not less than one agents post the change of the data types to user terminals which register a low-

hierarchical data type of the changed data types.

41. A push service processing method, comprising:

the registration step of registering information about
user terminals connected to a network using an Internet protocol
and various information which is requested to be posted by the
user terminals into agents which are connected to the network
and are substitute for the user terminals;

the first post step that a plurality of data servers which
are connected to the network and have various information post
information about updating of the various information to the
agents via the network;

the obtaining step that when the agents receive the
information about updating posted by the plurality of data
servers and the information about updating is information about
updating requested by registered user terminals, the agents
access to the data servers which have posted the information
about updating via the network so as to obtain contents of the
updated information; and

the second post step of posting the contents of the
updated information obtained at the obtaining step to the
registered user terminals via the network.

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42.   The push service processing method according to claim 41, wherein at the second post step the agents post the information about updating or the contents of the updated information to the user terminals via another network.

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43.   The push service processing method according to claim 41, further comprising the first processing step that when the not less than one agents accept the post that the various information is provided from a data server which is not

10   registered into a list table for managing a list of the data servers for providing the various information, the agents additionally register said data server into the list table.

44.   The push service processing method according to claim 41,

15   further comprising the second processing step that when the not less than one agents accept the post of management contents of the various information managed by data servers for providing the various information from said data servers, the agents add or delete the data servers in the data type management

20   information for managing the various information per data type based on the posted management contents.

45.   The push service processing method according to claim 41, further comprising the third processing step that when the not

25   less than one agents accept the information about adding or

deleting the data types of the various information managed by data servers for providing the various information from said data servers, the agents add or delete data servers relating to the data types to be added or deleted to/from the data servers

5   in the data type management information for managing the various information per data type.

46.   The push service processing method according to claim 41, further comprising the third post step that when the data types

10   in management are changed, the not less than one agents post the change of the data types to the user terminals.

47.   The push service processing method according to claim 46, further comprising the fourth post step that when the data types

15   are managed in a hierarchical relationship and the data types are changed, the not less than one agents post the change of the data types to user terminals which register a low-hierarchical data type of the changed data types.

20   48.   A push service processing method, comprising:

the registration step of registering information about user terminals connected to a network using an Internet protocol and various information which is requested to be posted by the user terminals into agents which are connected to the network

25   and are substitute for the user terminals;

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the first post step that a plurality of data servers which are connected to the network and have various information post contents of updated various information to the agents via the network; and

5   the second post step that when the agents receive the contents of the updated various information posted by the plurality of data servers and the contents of the updated information are information about updating requested by the registered user terminals, the agents post the contents of the

10 updated information to the registered user terminals via the network.

49.   The push service processing method according to claim 48, wherein at the second post step the agents post the information

15 about updating or the contents of the updated information to the user terminals via another network.

50.   The push service processing method according to claim 48, further comprising the first processing step that when the not

20 less than one agents accept the post that the various information is provided from a data server which is not registered into a list table for managing a list of the data servers for providing the various information, the agents additionally register said data server into the list table.

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51. The push service processing method according to claim 48, further comprising the second processing step that when the not less than one agents accept the post of management contents of the various information managed by data servers for providing

5   the various information from said data servers, the agents add or delete the data servers in the data type management information for managing the various information per data type based on the posted management contents.

10   52. The push service processing method according to claim 48, further comprising the third processing step that when the not less than one agents accept the information about adding or deleting the data types of the various information managed by data servers for providing the various information from said

15   data servers, the agents add or delete data servers relating to the data types to be added or deleted to/from the data servers in the data type management information for managing the various information per data type.

20   53. The push service processing method according to claim 48, further comprising the third post step that when the data types in management are changed, the not less than one agents post the change of the data types to the user terminals.

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54.   The push service processing method according to claim 53, further comprising the fourth post step that when the data types are managed in a hierarchical relationship and the data types are changed, the not less than one agents post the change of

5   the data types to user terminals which register a low-hierarchical data type of the changed data types.

55.   A push service system comprising:

a plurality of data servers; at least one agent; and a

10   plurality of user terminals,

wherein said data servers, said agent and said user terminals being connected to a network which uses an Internet protocol,

wherein said data servers store various information, and

15   if particular information is updated then said data servers send a notice indicating that the particular information is updated to said agent through said network,

wherein information about said user terminals and information required by each of said user terminals about

20   updating of particular information is registered in said agent in a correlated fashion,

wherein when said agent receives the notice about updating of some particular information from any of said data servers and if that particular information has been registered

25   in said agent in correlation to a user terminal then said agent

dispatches the notice about updating of that particular information to that particular user terminal

    wherein said particular user terminal access said data server that has sent the notice to said agent and obtains the

5   contents of update from said data server.

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